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EXAMINER

LAI, DANIEL

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/826,882	Applicant(s) RASANEN ET AL.	
	Examiner DANIEL LAI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-12,16-24 and 26-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 10,11 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION**Response to Amendment*****Response to Arguments***

Applicant's arguments filed 2 February 2009 have been fully considered but they are not persuasive. In response to the argument that WO'881 fails to disclose a parameter negotiation between the first communication unit and the third communication unit of the first type prior to the change of associations, Examiner respectfully disagrees because WO'881 discloses "the connection between the mobile station 6 and the MSC 12 is negotiated based on default values before the actual handover procedure" (p. 13, lines 20-23), and "modify procedure may also be accomplished in during the set-up of the connection between the mobile station and the target MSC" (p. 14, lines 1-3), and therefore, WO'881 discloses a parameter negotiation between the first communication unit and the third communication unit of the first type prior to the change of associations.

Applicant's arguments with respect to claims 1, 12, 29 and 31-35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 23 is objected to because of the following informalities: The recitation "after which s re-transmission" appears to be an error. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 16, 21, 26, 30 and 33-37 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/65881, hereinafter WO'881.

Regarding claims 12 and 33-35, WO'881 discloses , a method and an apparatus for negotiation or re-negotiation of at least one parameter for use in the operation of a protocol that controls data transmission between first communication units and third communication units via second communication units (p. 11, line 15-p. 12, line 24). WO'881 discloses said protocol is operated by protocol entities in said first and third communication units (p. 11, lines 15-27, where WO'881 discusses protocol entities). WO'881 discloses a first communication unit is always associated with a second communication unit at a time and a second communication unit is always associated with a third communication unit at a time (p. 8, lines 12-31, where WO'881 discusses different network entities). WO'881 discloses there exists third communication units of at least a first and second type that require different choices of said parameter (p. 8, lines 12-22, p. 11, line 29-p. 12, line 9). WO'881 discloses transmitting when an existing association of a first communication unit with a former second communication unit that of said first type is changed to an association of said first communication unit with a new second communication of said second type (p. 8, line 24-p. 9, line 8, p. 12, line 11-23), a negotiation message containing a value for said parameter from said protocol entity of said third communication unit associated with said new second communication unit to said protocol entity of said first communication unit (p. 13, line 25-p. 14, line 11). WO'881 discloses said value for said parameter depends on a transmission characteristic of a transmission medium between said new second communication unit and its associated third communication unit, said transmission characteristic being related to

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transmission delay (p. 11, line 29-p. 12, line 9, p. 12, line 25-p. 13, line 2, note that WO'881 discloses the value for said parameter related to number of channel to accomplish a required data rate, and therefore is related to transmission delay). WO'881 discloses said value can be determined by said third communication unit associated with said new second communication unit for each of the second communication units it can be associated with (p. 13, line 4-9, where WO'881 discusses determination of appropriate parameter value is accomplished by target MSC).

Regarding claims 26, 30, 36 and 37, WO'881 discloses negotiation of parameters for use in the operation of a protocol that controls data transmission between first Communication Units (CU) and third CU via second CUs (Background of the Invention, where WO'881 discusses standards; Summary of the Invention; p. 13, line 20-23). WO'881 discloses the protocol is operated by protocol entities in the first and third CUs (p. 3, line 4-8). A first CU is always associated with a second CU and the second CU is always associated with a third CU at a time (a mobile always associated with a base station and the base station always associated with a (Mobile Switching Center) MSC at a time). WO'881 discloses there exist second CUs of at least a first and second type and third CUs of at least a first and second type that require different choices of said parameter (p. 7, line 13-p. 8, line 22). WO'881 discloses transmitting in the case that it is possible that an association of said first CU with a second CU that is associated with a third CU of a first time may be change to an association of said first CU with a second CU that is associated with a third CU of a second type (p. 8, line 31-p. 9, line 4, where WO'881 discloses handover from old cell to a new cell; Fig. 1), at least one negotiation message containing a value for said parameter from a protocol entity of said first communication unit to said third communication unit of said first type or from a protocol entity of said third communication unit of said first type to a protocol entity of said first communication unit prior to

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said change of association (p. 13, line 20-30; p. 12, line 11-23, p. 14, lines 5-11, where WO'881 discusses negotiation and renegotiation and parameters are negotiated before the actual handover procedure).

Regarding claim 16, WO'881 discloses the first CU is a mobile station (Fig. 1), the second CUs are Base Transceiver Stations (Fig. 1), and the third CUs are Mobile Switching Centers (Fig. 1).

Regarding claims 17-20, WO'881 further discloses one out of said first and second types of said second communication unit is a base transceiver station that is connected to its associated mobile-services switching center via a lower-delay network, and wherein the other type of said second communication unit is a base transceiver station that is connected to its associated mobile-services switching center via a higher delay network (p. 11, lines 29-p. 12, lines 9, where WO'881 discusses GSM and UMTS networks), wherein said lower delay network is a time division multiplex network (<http://www.webopedia.com/TERM/G/GSM.html>, which discloses GSM uses TDMA), and wherein said higher-delay network is at least partially based on the internet protocol (according to <http://www.webopedia.com/TERM/U/UMTS.html>, UMTS is partially based on satellite connection).

Regarding claim 21, WO'881 further discloses the protocol is circuit switched (p. 12, line 11-13).

Regarding claim 22, WO'881 further discloses the protocol is circuit switched and is a radio link protocol (p. 12, line 11-13, according to background of the instant application, data transfer for GSM and UMTS is based on RLP (p. 1, lines 26-31)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881.

Regarding claims 38 and 39, WO'881 discloses the limitations of claims 12 and 26 as applied above. WO does not explicitly disclose a computer readable memory in which a computer program product is loaded and when executed perform the actions of claims 12 and 26. However, since WO'881 is discussing a cellular system, and more specifically, GSM and UMTS networks, which would require computer programs to perform network operations. It would have

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been obvious to one having ordinary skill in the art at the time of the invention to modify the method of parameter negotiation as disclosed by WO'881 with a computer readable memory encoded with executable instructions and when executed perform the method of parameter negotiation disclosed by WO'881 in order to allow the method to perform with minimal manual process steps.

Claims 1, 5-8, 28, 29, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881 in view of WO 00/44189, hereinafter WO'189.

Regarding claims 1, 29, 31 and 32 WO'881 discloses a method and a system for negotiation or re-negotiation of at least one parameter for use in the operation of a protocol that controls data transmission between first communication units and third communication units via second communication units (p. 8, lines 12-22, where WO'881 discusses a mobile station, a BTS and a MSC, p. 14, lines 5-11, where WO'881 discusses mobile station renegotiate parameters), where said protocol is operated by protocol entities in said first and third communication units (p. 11, lines 15-27, where WO'881 discusses protocol entities), where a first communication unit is always associated with a second communication unit at a time and a second communication unit is always associated with a third communication unit at a time (p. 8, lines 12-31, where WO'881 discusses different network entities), where there exists third communication units of at least a first and second type that require different choices of said parameter (p. 8, lines 12-22, p. 11, line 29-p. 12, line 9, where WO'881 discusses UMTS and GSM), said method comprising starting, in case that an existing association of a first communication unit that was associated with a third communication unit of said first type is changed to an association of said first communication unit with a new second communication unit that is associated with a third

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communication unit of said second type (p. 12, lines 11-23, where WO'881 discusses handover from UMTS network to GSM network), an initiative for an exchange of at least one negotiation message containing a value for said parameter between protocol entities of said first communication unit and protocol entities of third communication unit of said second type by transmitting, from a protocol entities of a third communication unit of said third communication unit of said second type (p. 14, lines 5-11, where WO'881 discusses transmitting a negotiation message to target MSC with altered parameters for parameters re-negotiation). WO'881 further discloses a checking performed by said first communication unit whether said parameter needs to be negotiated or renegotiated and said transmitting is only performed if said checking produced positive results (p. 14, lines 5-11), but does not expressly disclose a checking performed by said first communication unit whether said parameter is required for the operation of said protocol between said protocol entities of said first communication unit and said third communication unit of said second type. In an analogous art, WO'189 discloses a mobile station determines whether a handover is required by examining network parameters (p. 21, lines 3-21, where WO'189 discusses BCIE used by mobile station to decide whether a handover is required) in order to achieve a service request (p. 20, line 34-p. 21, line 1). In other words, the parameters are determined to be required such that a handover is initiated to accommodate the parameters. It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the step of checking whether parameters are required for a service request as disclosed by WO'189 to the method of internetworking handover as disclosed by WO'881 to allow handover to occur when a service request cannot be accommodated by a first type of network in order to allow a second type of network to accommodate the service request.

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Regarding claim 5, WO'881 discloses the first CU is a mobile station (Fig. 1), the second CUs are Base Transceiver Stations (Fig. 1), and the third CUs are Mobile Switching Centers (Fig. 1).

Regarding claim 6, WO'881 discloses the third CU of the first type is a MSC of a mobile network operated according to the UMTS standard (p. 12, line 11-13), and the third CU of the second type is a MSC of a mobile network operated according to the GSM standard (p. 12, line 11-13).

Regarding claims 7 and 8, WO'881 discloses the protocol is circuit switched and is a radio link protocol (p. 12, line 11-13, according to background of the instant application, data transfer for GSM and UMTS is based on RLP (p. 1, lines 26-31), and WO'881 discloses GSM and UMTS (p. 12, lines 11-13), therefore, WO'881 discloses the protocol is a RLP).

Regarding claim 28, WO'881 in view of WO'189 discloses the limitations of claim 1 as applied above. WO'881 does not explicitly disclose a computer readable memory in which a computer program product is loaded and when executed perform the actions of claim 1. However, since WO'881 is discussing a cellular system, and more specifically, GSM and UMTS networks, which would require computer programs to perform network operations. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of parameter negotiation as disclosed by WO'881 with a computer readable memory encoded with executable instructions and when executed perform the method of parameter negotiation disclosed by WO'881 in order to allow the method to perform with minimal manual process steps.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881 in view of Applicant's Admitted Prior Art (Admission).

WO'881 discloses the limitations of claim 21 as applied above. WO'881 does not expressly disclose the parameter defines a value of an acknowledgement timer that guards a

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retransmission period after which a re-transmission of a not-acknowledged frame within a protocol with Automatic repeat request may be started. However, as admitted by Admission, data transfer in GSM and UMTS are based on RLP (p. 1, lines 26-31), and a control parameter of RLP protocol, an acknowledge timer T1 is associated with a transmitting RLP entity to indicate a re-transmission period after which the re-transmission of a not-acknowledged frame may be started (p. 3, lines 5-8). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the parameters for internetworking handover as disclosed by WO'881 with an acknowledgement timer as disclosed by Admission in order to define a time period to retransmit a frame that was not correctly received by a receiver and hence lost packet can be retransmitted to the receiver.

Claim 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'881 in view of 3GPP TS 24.022 version 5.1.0 Release 5 (hereinafter TS 24.022).

WO'881 discloses the limitations of claim 21 as applied above. WO'881 fails to disclose the parameter defines the value of a resequencing timer that guards the difference between the delays of frames transmitted on different physical links within a multi-link protocol. TS 24.022 discloses a re-sequencing timer (T4) as a XID parameter (p. 14, Table 1). TS 24.022 further discloses "a multi-link version frames may be received out of sequence due to different transmission delays. The period of timer T4 guards the re-sequencing period" (p. 21, 5.5.6). It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the method of negotiation of system parameters as disclosed by WO'881 with the re-sequencing timer disclosed by TS 24.022 so that RLP standard can be applied to the method of negotiation disclosed by WO'881 and defined the required connection parameters (see WO'881, p. 1, line 13-26, where WO'881 discusses standard and specification).

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Allowable Subject Matter

Claims 10, 11 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LAI whose telephone number is (571)270-1208. The examiner can normally be reached on Monday-Thursday 9:00 AM-5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. L./

Examiner, Art Unit 2617

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617